

The present invention is characterized by a monodomain which has no grain boundary therein, and which can be regarded as a single crystal although it has point defects to be neutralized. The present invention discloses the monodomain TFTs in a peripheral driving circuit portion and the crystalline TFTs in the pixel portion of a liquid crystal display device. Further, the crystalline TFTs in the pixel portion also can be monodomain TFTs as well as those in the peripheral driving circuit portion as shown in Figs. 11A-11E of the Sixth Embodiment.

Claims 1-4, 6-9, 11-14, 16-19, 21-24, 39-43 are rejected 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent 5,614,733 to Zhang et al. in the Office Action of October 22, 1997 in the parent application. This rejection is traversed for the reasons advanced in detail below.

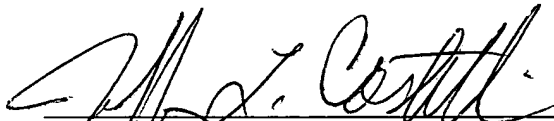
In the specification of the claimed invention, the monodomain region is formed by heating at a temperature in the range of 450-750°C while irradiating with a laser light as described at page 7 line 29 - page 8 line 36. Zhang's crystalline silicon, however, is obtained by irradiating with a laser light with heating at 200-450°C, eg., 300°C at col. 5 lines 39-40 in EXAMPLE 1; 200-450°C, eg., 400°C at col. 7 lines 5-6 in EXAMPLE 2; 100-450°C, eg., 300°C at col. 8 lines 52 in EXAMPLE 3; 100-450°C, eg., 350°C at col. 10 lines 15-17 in EXAMPLE 4. Therefore, Applicants contend that it is not clarified whether Zhang's crystalline silicon film is monodomain or not. Consequently, Applicants believe the amendments to the claims herein overcomes the reference of Zhang '733.

Further, Applicants note that the concentrations of carbon, nitrogen and oxygen in a monodomain silicon film is important when combined with the

above-noted features because these unexpected impurities prevent crystals from growing. Thus, a grain in a semiconductor film containing such impurities cannot become large in size. This specific feature is recited in claims 4, 9, 14, 19, 24, and newly added claims 64-68 and 72 disclosed in the specification at page 5 lines 15-18. Although the concentration feature alone is known, this feature combined with the above-noted monodomain features of the present invention are novel over the cited art of record.

In view of the foregoing amendments and remarks, it is urged this case is now in condition for allowance and a notice to that effect is requested.

Respectfully submitted,



Jeffrey L. Costellia
Registration No. 35,483

Sixbey, Friedman, Leedom & Ferguson, P.C.
2010 Corporate Ridge, Suite 600
McLean, Virginia 22102
(703) 790-9110